

C.) REMARKS

Status of the Claims

Claims 1-26 and 28-29 are pending in the application and claims 27 and 30 were previously withdrawn from consideration. Claims 1-26 and 28-29 stand rejected by the Examiner. By this amendment claims 1 and 26 are amended. No new matter is added.

Claim Rejections

A. 112 Rejections

On page 2 of the Office Action, claims 1-25 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Office Action alleges that "claim 1 recites the applicator 'heads are fixed relative to one another at predetermined angles.' The claim also recites one or more applicator heads travel at a first speed and second [sic]. It is unclear how one or more applicator heads can travel at a predetermined speed without the others." Office Action, page 2.

The test for definiteness under 35 U.S.C. § 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). While the Applicant believes that the claim satisfies this § 112 definiteness requirements, in order to expedite prosecution the Applicant has amended claim 1 to clarify, even further, the relationship of the applicator heads on the applicator. Namely, the Applicant has amended claim 1 to recite that "each of the plurality of applicator heads travels at a first speed when any one of the heads is at a first location... [and] travels at a second speed when any one of the heads is at a second location." This amendment is supported, for example, by the specification at page 20, lines 23-24: "whenever one head 118 is slowed down, the other is slowed as well because they are rigidly connected to one another;" and at page 21, lines 9-12: "the applicator 110 must be decelerated to the speed of the incoming units 106 each time an applicator head 118 passes the supply feeder 112, and accelerated to

the speed of the web 102 each time an applicator head 118 passes thereby." A similar amendment has been made to claim 26.

The Applicant respectfully submits that no new matter is presented by this amendment, and that the requirements of 35 U.S.C. § 112, second paragraph are satisfied. Accordingly, the Applicant requests withdrawal of rejection of claims 1-25 on these grounds. Should this amendment fail to satisfy the Examiner's clarity requirements, the Applicant welcomes the Examiner to suggest alternate claim language that would place these claims in compliance with statutory requirements of 35 U.S.C. § 112, second paragraph, in accordance with MPEP 2173.02 (Rev. 1, Feb. 2003).

B. 103 Rejections

Claims 1-26 and 28-29 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,925,520 to Beaudoin, *et al.* ("Beaudoin") in view of U.S. Patent No. 6,149,755 to McNichols, *et al.* ("McNichols"). Three criteria must be met to establish a *prima facie* case of obviousness: (1) there must be some suggestion or motivation to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all the claim limitations. *See* MPEP § 2142 *et seq.* Applicant respectfully submits that the prior art of record, regardless of whether it is properly combined, fails to teach or suggest all of the features of the proposed amended claims and therefore there is no *prima facie* case of obviousness.

With respect to claims 1 and 26<sup>1</sup>, the Office Action alleges that Beaudoin discloses all the claimed features, with the exception of (1) a control device to control

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<sup>1</sup> The Action refers to claims 1 and 16 with respect to these comments, but the comments instead appear to apply to independent claims 1 and 26. If this belief is mistaken, the Applicant respectfully requests that the Examiner clarify the rejection in the next correspondence.

the rotational speed of the motor and, thus, the applicator heads so that they travel at a first speed at a first location and a second speed at a second location; and (2) that "the angle about the axis of the first location and second location is not equal to the predetermined angles between the heads." However, the Office Action alleges that these features are well known and conventional, as shown, for example, in McNichols at column 16, lines 4-23 and Figure 19. Office Action, pages 3-4. Applicant hereby respectfully traverses the rejection for the following reasons.

Beaudoin discloses an elastic waistband applicator for cutting and transferring an elastic waistband material in an absorbent article. One component of this applicator is an elastic segment transfer or stretching device (21)<sup>2</sup> which picks up an unstretched elastic segment from one location (vacuum drum 20), stretches it, then deposits it at a second location (transfer roll 22) for incorporation into the article. This transfer device has gripper units that have radially extending members (51, 52) fastened to a shaft (59) so that they rotate about the shaft like spokes of a wheel, and grippers (53, 54) that are attached to the distal ends of the radially extending members, for holding the elastic segments during stretching and rotating. Beaudoin at col. 5, ll. 52-60. The grippers have linear velocities equal or nearly equal to the linear velocity of the periphery of the transfer roll (22) on which the elastic segments are deposited. *Id.*, at col. 5, ll. 17-19. The linear speed of the grippers is faster than the linear speed of the periphery of the vacuum drum (20). *Id.*, at col. 5, ll. 29-34. However, Beaudoin does not teach or suggest a transfer device having a controlled variable speed such that the gripper speed matches the speed of the vacuum drum when the elastic segments are picked up, and changes to match the speed of the transfer roll when the elastic segments are deposited. Further, such a controlled variable speed would not be possible in the apparatus as

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<sup>2</sup> In order to prevent confusion between the reference numerals of the cited art and the reference numerals of the present invention, the prior art reference numerals are designated in parentheses.

disclosed in Beaudoin, because the grippers are 180° apart on the shaft, as are the contact points with the vacuum drum and the transfer roll. In other words, the gripper units simultaneously perform the acts of picking up and depositing the elastic segments and therefore could only have one linear speed during both pick-up and deposit.

McNichols discloses a combination roller (102), that is used to cut a discrete workpiece (906) from a component web (912), and place it on a substrate web (903). McNichols, col. 11, ll. 5-23. The speed of the combination roller is selectively controlled and varied by a servomotor that has been programmed using a desired speed profile. *Id.* at col. 11, ll. 53-67. The speed profiles, depicted in Fig. 20, are designed to change the speed of the workpiece from a first speed (that of the component web) to a second speed (that of the substrate web). *Id.* at col. 12, ll. 8-43.

Notably, McNichols discloses a combination roller having an essentially continuous drum-like surface structure that acts as a *single* applicator, and fails to disclose an applicator having a plurality of applicator heads. For discussion purposes, representative Figure 19 of McNichols is reproduced, in relevant part, below :

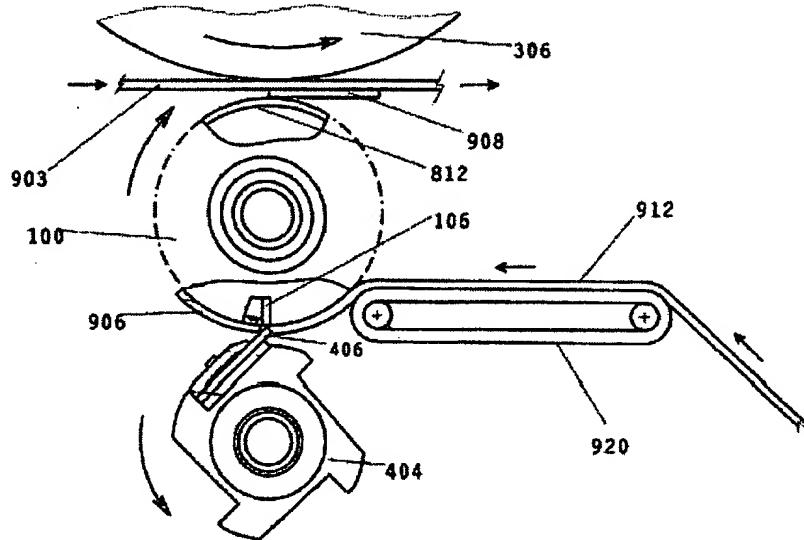


Figure 19

Figure 19 shows combination roll (100) which transports workpieces (906, 908) that are cut from component web (912) by rotary cutter (404) to a position where they are

attached to substrate web (903). Reference character 106 represents the cutting bar anvil on the combination roller (100). It is important to note that there is only *one* anvil (106) on the combination roller (100), so there can be only *one* cut workpiece (906) on the surface of the combination roller at any given moment during the process.<sup>3</sup> Therefore, combination roller (100) is a single applicator — in other words, it picks up and deposits only one workpiece per revolution of the combination roller (100). This is further supported by the description of Figure 20, which shows the velocity profile of the combination roller (100): “Speed profiles for one cycle of a process using the machine of the present invention are shown as solid lines in the graph depicted in FIG. 20... the interval between T<sub>0</sub> and T<sub>6</sub> represent[s] the time required for one *complete* rotation of the combination roller 104.” McNichols, col. 12, ll. 1-8 (emphasis added). Thus, the change in speed from V<sub>1</sub> (pick-up speed) to V<sub>2</sub> (deposit speed) and back to V<sub>1</sub> (pick-up speed) occurs *once* for each complete rotation of combination roller (100).

Because the combination roller (100) of McNichols is a single applicator, the entire surface (104) of the combination roller is equivalent to *one* applicator head. Throughout a full rotation of the combination roller (100), the surface (104) of the roller is *always* located at the pick-up location at component web (912), and is *always* located at the deposit location at the substrate web (903), while the roller speed varies, as shown in Figure 19. In other words, when the surface of the combination roller is traveling at speed V<sub>1</sub>, which is the speed necessary to pick up the workpiece, the applicator head is located at both the component web and at the substrate web; and when the combination roller is traveling at speed V<sub>2</sub>, which is the speed necessary to deposit the workpiece onto the substrate web, the applicator is also located at both the component web and at

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<sup>3</sup> In Figure 19 of McNichols, reference character 908 represents a workpiece component that has been attached to the substrate web (903) “prior in time in the process.” McNichols, col. 11, l. 21. That is to say, workpiece component (908) was picked up and deposited during a previous revolution of the combination roller (100).

the substrate web. Because the surface (104) of the combination roller (100) is at *both* positions throughout its speed cycle, McNichols clearly fails to teach or suggest an applicator having a plurality of applicator heads, where "each of the plurality of applicator heads travels at a first speed when any one of the heads is at a first location... [and] travels at a second speed when any one of the heads is at a second location," as recited in the present claims.

One deficiency of the McNichols design, which is overcome by the unique arrangement of the claimed invention, is that the combination roller is continuously in contact with the substrate web and the component web. When there is a speed differential between the combination roller and the substrate web, such as when the combination roller is decelerated to pick up a workpiece, the speed differential creates a potential to damage the substrate web by frictional contact therewith. A similar differential speed and risk of damage is experienced at the component web when the combination roller is accelerated to the higher speed to deposit the workpiece on the substrate web. This risk of damage is specifically recognized in the present specification: "when the units or the web come into contact with a placing device having a different surface velocity they may be subjected to potentially harmful forces, such as impacts, friction, tension, compression, and the like." Specification, page 3, lines 17-19.

In contrast to Beaudoin and McNichols, the present claims all recite an applicator having a plurality of applicator heads, where

...each of the plurality of applicator heads travels at a first speed when any one of the heads is at a first location to pick up one or more parts moving at approximately the first speed, and each of the plurality of applicator heads travels at a second speed when any one of the heads is at a second location to deposit the one or more parts onto one or more targets moving at approximately the second speed...

The importance of this feature of the claimed invention is that it eliminates the possibility that the applicator heads 118 will contact either the discrete units 106 or the

target web 102 while they are traveling at the wrong speed, which can cause problems such as those described above.

Neither Beaudoin nor McNichols teaches or reasonably suggests this feature of the claimed invention. Instead, Beaudoin shows a transfer apparatus having two gripper units that travel at only one speed, while McNichols shows an applicator having one continuous drum surface that varies between the speed of a component web and a substrate web, but the drum surface is continuously in contact with both the component web and the substrate web.

For at least the foregoing reasons, the combination of Beaudoin and McNichols fails to teach all of the features of the claimed invention, and therefore the combination does not support a *prima facie* case of obviousness under 35 U.S.C. § 103. Accordingly, the Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-26 and 28-29.

Conclusion

For at least the reasons provided above, Applicant submits that the application is in condition for allowance, and favorable reconsideration and allowance of the pending claims are respectfully solicited. Should there be any questions regarding the foregoing, the Examiner is invited to contact the applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,  
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